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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,495	07/02/2003	Ticnteh Chen	200209928-1	4418

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EXAMINER

SCHWARTZ, PAMELA R

ART UNIT	PAPER NUMBER
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1774

MAIL DATE	DELIVERY MODE
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09/06/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/613,495	Applicant(s) CHEN ET AL.	
	Examiner Pamela R. Schwartz	Art Unit 1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6, 7, 9 and 11-20 is/are pending in the application.
- 4a) Of the above claim(s) 9, 11-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6 and 7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>20070807</u> . | 6) <input type="checkbox"/> Other: _____ |

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1. Claims 1-4, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicants' admissions in their 131 Declaration. The papers filed by applicants admit that both the base paper and the ink receptive coating of their invention were known at the time of their invention. Based upon this admission, it would have been obvious to one of ordinary skill in the art to coat the commercially available base paper with a known ink receptive composition at a conventional coating weight in order to obtain an ink receptive medium.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Graumann et al. (EP 0878319).

The reference discloses and ink jet recording material [0001]. Commercially available cast-coated paper supports such as those used in applicants' invention are disclosed as supports for ink jet recording medium at [0030]. Coat weight of the ink receiving layer is preferably 4 to 10 g/m² [0018]. This range fully encompasses the instantly claimed range with the preferred lower end point also being the lower end point of applicants' preferred range of claim 2. Therefore, the disclosure of the reference is considered to anticipate applicants' claims. In addition, due to full overlap of the coating weight range and disclosure of a specific commercially available material that applicants disclose as meeting their support requirements, formation of a medium with this disclosed support

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have a coating weight within the claimed range would have been obvious to one of ordinary skill in this art.

3. Claims 1-4, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sekiguchi (6,485,812) in view of Graumann et al. (EP 0878319). The primary reference discloses an ink jet recording medium having an ink receiving layer containing binder and fine particles (col. 8, lines 29-34). The particles may be cationic colloidal silica and the binder may be polyvinyl alcohol (col. 11, lines 30-33, 50-54, 60-61). In addition, the layer may contain cross-linking agents, surfactant and cationic dye fixing agent (col. 12, lines 40-42). The support may be cast coated paper or paper that has been calendered (col. 16 line 40 to col. 17, line 27). The coating may be between 1 and 50 g/m². The specific cross-linking agents, surfactants and cationic dye fixing agents (mordants) of claims 4 and 7 are all well known and conventional in the art. Therefore, it would have been obvious to one of ordinary skill in the art to use the commercially available cast coated paper of the secondary reference for its disclosed purpose as the support of an ink jet recording material, and to coat the paper with the known agents at conventional coating weights in order to form an ink jet recording medium.

4. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sekiguchi (6,485,812) in view of Graumann et al. (EP 0878319) and further in view of Shih et al. (6,780,924) and Koike et al. (6,777,039). Sekiguchi set forth categories of materials that may be present but does not disclose groups of materials for each category. Therefore, it is appropriate to look at materials that are known in the art for

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each of these categories. Shih et al. disclose that mordants as recited by claim 4 are known in the art as pigments and mordants respectively in ink receptive layers (see col. 5, lines 34-56). Therefore, it would have been obvious to one of ordinary skill in the art to include poly(diallyldimethylammonium chloride, a well known mordant, as the mordant of the primary reference. Koike et al. disclose an ink jet recording sheet which includes polyvinyl alcohol as binder and boron compounds, including boric acid, to cross-link the binder (see col. 5, lines 9-28 and col. 10, lines 40-52). Based upon this disclosure of the effectiveness of boron compounds in cross linking polyvinyl alcohol, it would have been obvious to include boric acid as the crosslinker disclosed by the primary reference for its concomitant function therein.

5. Claims 1-3, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sekiguchi (6,485,812) in view of Graumann et al. (EP 0878319) as relied upon above and further in view of Nigam et al. (6,936,316). Sekiguchi set forth categories of materials that may be present but does not disclose groups of materials for each category. Therefore, it is appropriate to look at materials that are known in the art for each of these categories. Nigam et al. teach inclusion of polyethylene oxide siloxane surfactants in ink receptive layers of ink jet recording media (see Example 3). It would have been obvious to one of ordinary skill in the art to include this surfactant as the surfactant of the primary reference in order to improve coatability as suggested by the primary reference.

6. Applicant's arguments with respect to claims 1-4, 6 and 7 have been considered but are moot in view of the new ground(s) of rejection. In addition, the rejection over

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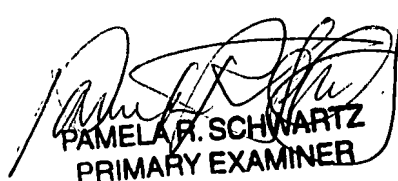
applicants' admissions has been retained. With respect to this rejection, the motivation to combine elements in this case is that the elements were used to perform the same functions in prior art ink jet recording elements as admitted by applicants. Unless an unexpected result is obtained, it would have been obvious to one of ordinary skill in the art to combine these known elements of ink jet recording media in order to obtain a predictable result.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pamela Schwartz whose telephone number is (571) 272-1528.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano, can be reached on (571) 272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PRSchwartz
August 31, 2007



PAMELA R. SCHWARTZ
PRIMARY EXAMINER